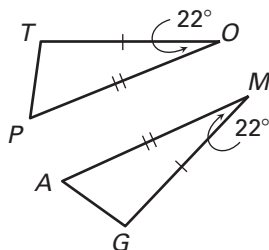


LESSON
5.6**Practice C**

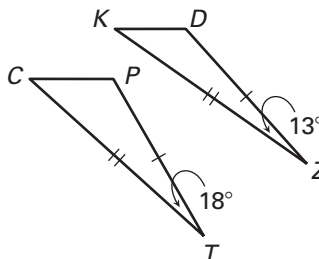
For use with pages 335–341

Complete with $<$, $>$, or $=$. Explain.

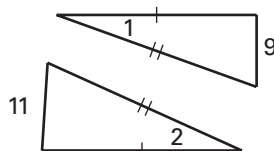
1. TP ? AG



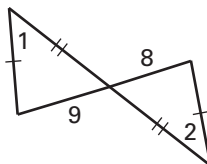
2. KD ? CP



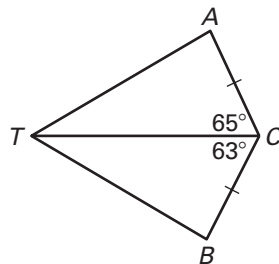
3. $m\angle 1$? $m\angle 2$



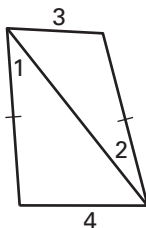
4. $m\angle 1$? $m\angle 2$



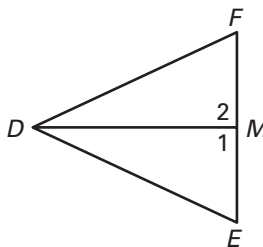
5. AT ? BT



6. $m\angle 1$? $m\angle 2$

**In $\triangle DEF$, DM is a median. Determine if each statement is *always*, *sometimes*, or *never* true.**

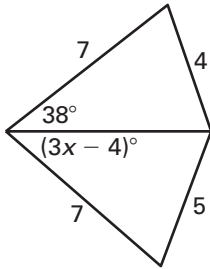
7. If $m\angle 2 > m\angle 1$, then $ED > FD$.
8. If $m\angle E > m\angle F$, then $\angle 1$ is obtuse.
9. If $\angle 2$ is acute, then $m\angle F > m\angle E$.
10. If $m\angle E < m\angle F$, then $m\angle 1 < m\angle 2$.
11. If $m\angle 2 = 90^\circ$, then $ED > FD$.
12. If $m\angle D = 90^\circ$, then $FD > ED$.



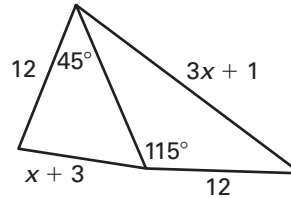
LESSON
5.6
Practice C *continued*
 For use with pages 335–341

Use the Hinge Theorem or its converse and properties of triangles to write and solve an inequality to describe a restriction on the value of x .

13.



14.



15. **Sailing** Two families are going sailing. Family A leaves the marina and sails 2.3 miles due north, then sails 3 miles due west. Family B leaves the marina and sails 2.3 miles due south, then sails 3 miles in a direction 1° north of due east. Which family is farther from the marina? *Explain* your reasoning.

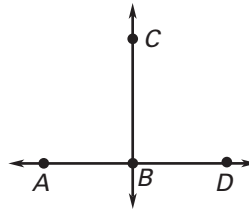
In Exercises 16–18, write an indirect proof.

16. **GIVEN:** $\triangle JKL$ is a scalene triangle.

PROVE: No two angles of $\triangle JKL$ are congruent.

17. **GIVEN:** $\angle ABC \neq \angle DBC$

PROVE: $\overline{BC} \nparallel \overline{AD}$



18. **GIVEN:** $\angle 1 \neq \angle 5$

PROVE: $\angle 2$ and $\angle 3$ are not supplementary.

